A. FRESCHL.

CUSHION.

APPLICATION FILED JAN. 13, 1908.

908,085. Patented Dec. 29, 1908.

Fig. 1.

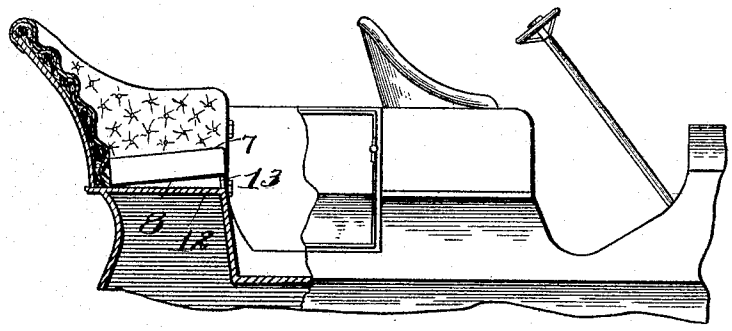


Fig. 2.

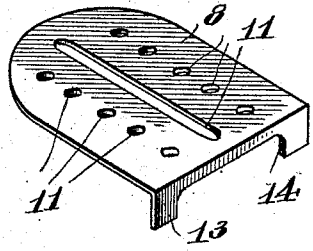


Fig. 3

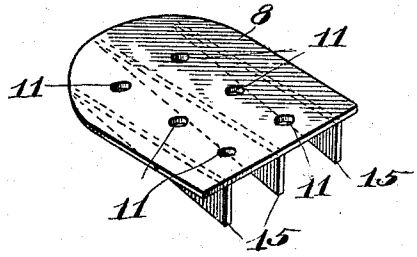


Fig. 4.

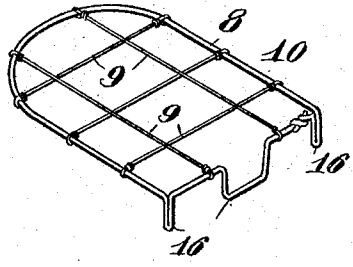
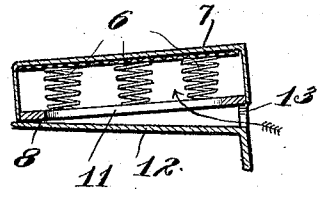


Fig. 5.



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UNITED STATES PATENT OFFICE.

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CUSHION.

No. 908,085. Specification of Letters Patent. Patented Dec. 29, 1908.

Application filed January 13, 1908. Serial No. 410,524.

To all whom it may concern:

Be it known that I, ALFRED FRESCHL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cushions, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to upholstering and particularly to cushions especially designed for automobile, car, and carriage seats.

The primary object of the invention is to devise a novel form of cushion providing for free circulation of air within the cushion, and another object is to provide a cushion having springs of uniform size in which the top of the cushion inclines slightly rearwardly.

In automobiles and carriages the cushion or seat-pad rests upon a suitable support such as the seat-frame, and fits closely against the upholstery of the back and sides of the seat on three of its sides leaving only the front edge exposed or free. These cushions are usually composed of a base provided either by a suitable strip or piece of wood or other material or by a skeleton metallic frame, and springs are mounted on the base to support and carry the cover or upper portion of the cushion, the material of the cover extending down around the sides and ends and being suitably secured all around its margin or edge to the base. It is obvious that these cushions are closed when they have bases composed of strips of wood or other material, and that when they have open or skeleton bases they are also closed by the shelf of the seat frame upon which they rest, so that in either case the air is confined within the cushion and acts as a resistance to the free depression of the springs when strain or load is placed thereon. Heretofore, efforts have been made to remedy this defect by providing gromets or eyelets in the marginal portions of the cover at the sides and ends, but this expedient has proved unsatisfactory as the gromets in the rear side and ends are ineffective owing to the fact that these portions of the cushion are close against the upholstery of the back and sides of the seat so that they are effectually closed, and those in the front side are often closed by the apparel of the passenger or when free are insufficient to allow the ingress and egress of air without producing unpleasant noises. By the present invention I obviate these objections and provide free and full circulation of air within the cushion and between the cushion and seat-frame.

Furthermore, in automobiles it is desirable to have the seat inclined slightly toward the rear, this being especially true of the back or tonneau seats, and in cushions as now made this inclination is provided by employing relatively smaller springs along the rear portion of the cushion. This is objectionable as it is obvious that the weight of the passenger rests more upon these relatively smaller springs than upon the larger and stronger ones along the front which are near the knees of the passenger and therefore not so directly under the weight, and that therefore these smaller springs are subjected to greater wear with the result that they soon break down and render the cushion useless. By my invention, as will more fully hereinafter appear, I am able to incline the cushion rearwardly while employing springs of uniform size.

The invention consists in the organizations and arrangements of parts hereinafter described and then particularly pointed out in the appended claims.

The invention is illustrated in the accompanying drawings as applied to a cushion for an automobile, and it will be of course understood that it applies in like manner to cushions for a plurality of passengers or seats, or for a single seat or passenger, and to cushions for all other classes of seats, such as carriages, cars etc.

In the drawings Figure 1 is an end view of a cushion in an automobile or carriage seat illustrating an application of my invention, parts of the automobile body being broken away; Fig. 2 is a perspective view of one form of base that may be employed in constructing the cushion; Fig. 3 is a view similar to Fig. 2 but showing different means for elevating the front edge of the base; Fig. 4 is a similar view of another form of base; and Fig. 5 is a transverse sectional view through the cushion of Fig. 1 with the seat-frame in section.

The reference numeral 6 indicates a series of springs employed in springing-up the cushion and which support or carry the pad 7 composing the top or cover of the cushion and either tufted or plain as desired. The springs are carried and supported in rows or banks upon a suitable base 8; in the form shown in Fig. 2 this base is composed of a suitable length or strip of wood or other

suitable material, and in Fig. 4 of a skeleton frame composed of suitable cross-wires 9 connected by a border wire 10. The material composing the pad of the cushion is extended down on the sides and ends of the cushion and suitably secured at its edge or margin to the base. In order to provide circulation of air in the cushion the base is preferably made of more or less open nature or construction, as in the skeleton form illustrated in Fig. 4 or by providing suitable holes or perforations 11 when the base is composed of a length of board or other material.

As the seat-frames of vehicles, such as carriages and automobiles, are usually provided with a cushion shelf or support 12 usually composed of boards, in order to provide circulation of the air to the cushion I incline the cushion from front to rear in order to raise the front edge of the base slightly above the shelf of the seat-frame. As shown in Figs. 1, 2, and 5 this may be accomplished by providing a front elevating piece or riser 13 between the shelf of the seat-frame and the front edge of the cushion and adapted to raise the latter slightly above and away from the former and having passages or openings for air in any convenient manner as by cutting away a portion of the riser as shown at 14. When the cushion is in place the elevating piece or riser raises the front of the cushion to allow air to pass freely between the seat 12 and the cushion as indicated by the arrow in Fig. 5, and the open nature of the base of the cushion allows the air to have free circulation in the cushion itself.

It is obvious that the riser for elevating the front edge of the cushion may be provided in any suitable manner and by any suitable means; the form above described is practical and satisfactory for this purpose, or as shown in Fig. 3 the base of the cushion may have a plurality of transverse ribs or strips 15 of sufficient height at their front ends to elevate the front edge of the cushion above its support or shelf and gradually tapering off toward their rear ends to merge in the plane of the base. In the form shown in Fig. 4 the front of the border wire is provided with one or more downwardly projecting legs 16 which form a suitable riser. It is of course to be understood that these or other forms of risers may be employed interchangeably with the different forms of base shown in the drawings or with other equivalent forms without departing from the present invention.

By employing a suitable riser to elevate the front edge of the cushion I am able to tilt or incline the latter rearwardly without varying the size of the springs. As above pointed out it is desirable to incline the cushions rearwardly, especially in the tonneau-seats of automobiles, and this has heretofore been accomplished by employing springs of relatively smaller size in the rear portion of the cushion. By employing a suitable riser along the front edge of the cushion I am able to provide the desired rearward inclination of the cushion without varying the size of the springs as it will be seen by reference to Fig. 5 that the springs are of uniform size and the cushion inclines rearwardly. This feature is of material advantage not only in that it enables the maker of the cushions to use springs of uniform size, but it also adds to the life of the cushion in that relatively stronger springs are thereby employed in these portions of the cushion where the greatest weight is carried.

Having now described my invention, what I claim and desire to secure by Letters Patent is:—

1. A cushion comprising a cover or top pad, an open base, intermediate springs, the material of the pad being attached at or near its edge to the base, and a riser to elevate the front edge of the cushion.

2. A cushion comprising an open base, a series of springs of uniform size on the base, a cover or pad on the springs and connected to the base, and a riser on the front of the cushion.

3. In a device of the class described, a seat frame having a shelf, a cushion comprising an open base resting on the shelf, a series of springs on the base, a pad or cover on the springs and connected to the base, and a riser between the shelf and front edge of the seat frame to elevate the latter above the former.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED FRESCHL.

Witnesses:
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